

Claim 1

A method for manufacturing GaN light emitting diodes, comprising the steps of:

- (a) forming a light emitting structure on sapphire substrate, said light emitting structure includes a first conductive GaN clad layer, an active layer and a second conductive GaN layer sequentially stacked on the sapphire substrate;
- (b) partially cutting the light emitting structure into plural units with a designated size so that at least approximately 100 Å of the thickness of the first conductive GaN clad layer remains on the substrate;
- (c) attaching a conductive substrate to exposed upper surfaces of the unit light emitting structures using a conductive adhesive layer;
- (d) irradiating a laser beam on a lower surface of the sapphire substrate so that the sapphire substrate is removed from the unit light emitting structures, wherein the residual first conductive GaN clad layer is removed so that the light emitting structure can be perfectly divided into the unit light emitting structures with a size same as that of light emitting diodes to be finally manufactured;
- (e) forming first and second contacts respectively on the surface of the first conductive clad layer, from which the sapphire substrate is removed, and the exposed surface of the conductive substrate; and
- (f) cutting the resulting structure along the cut lines of the unit light emitting structures into plural unit light emitting diodes.